The Rufford Small Grants Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. The Final Report must be sent in **word format** and not PDF format or any other format. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. Please note that the information may be edited for clarity. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs, please send these to us separately.

Please submit your final report to jane@rufford.org.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	James Mwang'ombe
Project title	Promoting/enhancing biodiversity conservation through enhanced indigenous forest connectivity in Taita hills: Phase 1 (Mbololo/Mwambirwa segment).
RSG reference	8238-2
Reporting period	October 2010 – September 2011
Amount of grant	GBP 6000
Your email address	mwangombejames@yahoo.co.uk OR mwangombe@ttwforum.org
Date of this report	20th November 2011

1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not achieved	Partially achieved	Fully achieved	Comments
Enhanced conservation of endangered species in this area and in particular the endemic and critically threatened bird species including *T. heleri* (Taita Thrush) through increased ranging area.				This is the main/long-term objective. This project period is too short to say how far it has been achieved. This will only become apparent when the planted trees will attained a reasonable height and crown cover.
Increased awareness on biodiversity conservation among the participating farmers and other local residents.				Most of the farmers who are residing within the area were reached. This was done in several ways – public meetings which brought together more community members beyond the area targeted, and farm visits by the project assistants.
Enhanced indigenous forest cover on-farm.				This is a long-term objective and will only be realised after at least 7 years, The trees were planted, although this was only possible in the current long rains this season which began in October. There has been a severe drought with failed rainy seasons of October-December 2010 and March-May 2011. All the participating farmers have planted tree seedlings on their farms but it will take time for this to be felt
Enhanced indigenous forest connectivity between Mbololo and Mwambirwa forests.				This too will only become apparent after several years (at least 7years). All the participating farmer have planted the tree seedlings.
Reduced soil erosion on farms due to increased tree cover.				This too will be felt once the trees attain a certain size and their crown cover is large enough. However, as part of the awareness creation, training and follow-ups, the message included appropriate farming methods to conserve soil and control soil erosion.
Improved catchment function in the area due to increased tree cover.				This too is a long-term objective and very dependent on the trees achieving and fair size and crown cover.
Improved income generation among the farmers once the *P. africana*				This will be realised once the trees attain a reasonable size. It is anticipated that these benefits will start being realised 7 years from

trees are mature enough for the stripping of the bark for sale.				now.
Firewood provision from the pruning of branches of the P. africana.				This will be realised once the trees attain a reasonable size. It is anticipated that these benefits will start being realised 5 years from now.
A guide booklet on enhancing indigenous forest connectivity through planting on private farms.				The guide booklet will fully be realised once the trees have achieved a good size and their effect starts being felt. However, the participatory processes have been documented and once compiled would form the preliminary chapters.
Enhance implementation of some of the prescriptions of the Mbololo Mwambirwa Participatory Forest Management Plan				The increase in indigenous forest cover is one of the prescriptions of the participatory forest management plan that will become apparent after a few years when the trees planted attain a reasonable size.

2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

There were unforeseen difficulties and this was mainly due to erratic weather. There was prolonged drought upto September 2011. Both the short and long rains (October-December 2010 and Mar-May 2011) were below average and therefore no tree planting was undertaken in the area to avoid heavy losses. However, there were better rains in this season that began in October 2011 and tree planting was undertaken in earnest to achieve the goal of on-farm tree planting. The rainy seasons are becoming more and more erratic and unpredictable, probably a result of global warming and its effect on climate change.

3. Briefly describe the three most important outcomes of your project.

1. Awareness creation among the community members and farmers is one of the very important outcomes of this project. Getting farmers to understand the effect/impact of their activities on their farms on biodiversity conservation and how they can contribute to biodiversity conservation is a major step forward. The linking of the sustainability of their livelihood systems and the wellbeing of biodiversity was an eye-opener to most of them that helped create interest in participating in the activities. Some of the farmers had initially expressed unwillingness to participate citing small sizes of their farms and the effect the trees would have on crop growth. However, their fears were dissipated on learning that the effect of trees on crops growth could be minimised by adopting the most appropriate tree configuration.

2. The planting of trees (9,887) on farms (64 farms) along the "path" indicated by the "*Least-Cost Forest Connectivity Model*" is a major step forward in testing the applicability of this approach towards restoring habitat connectivity for species conservation. It is anticipated that, in a few years with periodic monitoring of the Taita thrush (and other bird species) and it's (their) conservation status, we will be in a position to know the appropriateness of this tool in modelling habitat connectivity interventions and its replicability in similar situations.

3. Although this was not among the envisaged outcomes of the project, it is however, an important one. The project worked closely with MWAMBO Community Forest Association that with assistance from the Kenya Forest Service is responsible for the implementation of the Mwambirwa/Mbololo Participatory Forest Management Plan. MWAMBO CFA was involved in arranging and calling for the public meetings with the assistance of the local area Chief. This helped the MWAMBO CFA realise the applicability of the PFM plan in the fact that a prescription relating connectivity between Mbololo and Mwambirwa forests and the increase on tree cover on-farm was being implemented with their participation. This kind of rejuvenated their commitment and enhanced their capacity.

4. Briefly describe the involvement of local communities and how they have benefitted from the project (if relevant).

The local community has been involved in almost every aspect of the project. This began with public meetings where farmers along the "paths" identified by the "Least-Cost Forest Connectivity Model" were involved (with farmers even beyond outside also attending and asking to be considered in the project). The farmers got to learn about endemic species found within the Taita hills and site endemics to Mbololo forest such as the *Saintpaulia teitensis* (Taita African violet). The farmers also learnt the importance of biodiversity conservation and its link to sustainable livelihood generation. More important is the knowledge they gained on appropriate farming techniques such as soil and water conservation, agro-forestry and farm forestry. Techniques that would reduce soil erosion and soil fertility loss resulting in improved yields. In addition to this, the provision of tree seedlings and training on their husbandry was a major benefit. The selection of tree species to be raised created project ownership and the fact that their opinion and knowledge was sought and considered made the farmers feel important and valued.

5. Are there any plans to continue this work?

This is just the beginning. More work is required in follow-up of the farmers to provide technical advice on tree husbandry among others such as on appropriate farming methods. There is need to have the farmers raise and/or plant more tree seedlings in order to increase indigenous tree cover.
In order to assess and get insight into whether the interventions being undertaken are having the desired impact, there will be need for periodic assessments on the progress of tree growth and once they attain a good size and crown cover, to monitor the use of these "paths" or "stepping stones" by individuals of the Taita Thrush and other bird species. This will indicate whether bird individuals are moving between Mbololo and Mwambirwa forests thus reducing in-breeding, increasing the range and therefore on the way to achieving habitat connectivity and species conservation.

6. How do you plan to share the results of your work with others?

The results of this work will be shared by uploading an article or report on the website if TTWF (www.ttwforum.org), including it as a study case in the annual report of TTWF and in completing and distributing copies of a guideline on re-establishing habitat connectivity through community participation and the application of "Least-Cost Forest Connectivity Modelling".

7. Timescale: Over what period was the RSG used? How does this compare to the anticipated or actual length of the project?

This grant was used over a period of 13.5 months (October 2010 to mid-November 2011). It was anticipated that the grant will be used over a period of 12 months. It was anticipated that the tree seedlings would be raised and planted within the first 6 months and the remaining 6 months used for care and maintenance of the planted tree seedlings and farmer follow-ups. Unfortunately, this could not take place due to rain failure and the planting was only possible this rainy season which has received relatively good rainfall. There is need for an extra 6 months or so for care and maintenance of the planted tree seedlings and follow-up of the participating farmers. Further assessment may be undertaken once annually to see the performance/growth of the tree seedlings and later the use of these woodlots by birds.

8. Budget: Please provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Awareness creation through public meetings	120	123	(3)	
Participatory selection of tree species	111	98	(2)	
Purchase of seedlings of the selected indigenous tree species	2269	2274	(5)	
Training of the participating farmers on tree planting and care	742	730	12	
Supply of tree seedlings to farmers and their planting	0	0	0	
Follow-up on the performance of the planted tree seedlings	521	506	15	TTWF will have to seek extra resources to carry on with follow-up of planted tree seedlings. Farmer follow-up was undertaken to ensure continue interest in project activities.
Staff emoluments	1673	1952	(279)	The extra expenditure is for the extra two months (Oct and Nov 2011) when planting took place due to the failed rainy seasons (Oct/Dec 2010 and Mar/May 2011). This was covered from TTWF resources.
Administrative costs (7.5%)	562	545	17	

Total	**6000**	**6228**	**(245)**	The extra expenditure was covered from TTWF own resources.

9. Looking ahead, what do you feel are the important next steps?

The next most important steps are as follows;

1. Care and maintenance of the planted tree seedlings. This will involve follow-up of participating farmers to ensure the trees are taken care of and for provision of technical support.
2. Continue raising and/or planting of more tree seedlings to increase indigenous tree cover.
3. Periodic (annual) assessment of the tree seedlings to check on their growth and to provide technical advice as required on tree husbandry.
4. Research and monitoring of the bird species – especially the Taita thrush – on their movements and use of the "paths" and "stepping stones" provided by the trees planted on the farms to indicate whether habitat connectivity is being achieved and thus enhancing conservation.
5. Measurements and monitoring of stream and river flows to indicate whether increase in tree cover is resulting in the anticipated improvements on the water catchment function of the forest.
6. Careful and precise documentation of all the observations and outcomes.

10. Did you use the RSGF logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

No material has been produced yet but it is anticipated materials will be produced documenting experiences and lesson learnt and these will bear the logo of RSGF and create some publicity. However, during public meetings and training sessions, care was taken to mention that the activities were being supported by RSGF.

11. Any other comments?

We are very grateful to RSGF for supporting this project and we look forward to more support in the future to undertaken more work in the area.